Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20024

In the Matter of	)	
	)	
Amendment of Part 73 of the Commission's	)	
Rules Regarding FM Class C4 and 73.215	)	MB 18-184
Notice of Inquiry	)	
	)	
	)	

To: The Commission:

COMMENTS

Comes now Charles M. Anderson, FM broadcast station licensee and broadcast engineering consultant, with comments generally supporting the Commission's Notice of Inquiry in MB Docket No. 18-184 regarding the establishment of an FM class C4 and triggering certain FM stations which are less than maximum class to §73.215 status.

The FM band is a mature aural service:

FM radio has existed in the United States some seventy-seven years since the first commercial FM in Nashville, TN, W47NV (WSM-FM) began operation in the 42-50 mHz band on March 1, 1941. The system as we now know it dates to the 1945 shift to 88-108 mHz and the 1962 First Report and Order in FCC 62-866 establishing protected contours and allocation separations.

The Commission recently announced a 2018 total of 10,866 FM stations 6,741 of which are in the non-reserved commercial band. This number of FM stations and the sparse number of petitions for rule-making seeking the allotment of new channels validate the maturity of the band and justify a shift in allocations priority to improving existing facilities.

To that end, it seems particularly logical to afford class A broadcasters the opportunity to improve their facilities in order to better serve suburban and rural areas that have grown substantially in the area and density of retail areas and subdivisions causing additional "clutter" attenuation of FM signals. The Commission's Office of Engineering Technology routinely uses 3-5 dB in clutter loss for developed areas in its Longley-Rice analysis of FM city grade coverage studies. Therefore, the addition of a 3 dB power increase for class A stations, the most challenged in terms of coverage, will help to ameliorate these clutter losses.

The addition of a new class permitting a maximum of 12 kW ERP at 100 meters HAAT , B2 in zones I and IA and class C4 in zone II, is consistent with the objectives of the 1962 table of separations which was based on a balance between protected

contours and the need for a sufficient number of allocations (FCC 62-866). In that proceeding contours were selected….

….to be large enough to permit the station an adequate basis of economic support and fulfill its particular function (coverage of a small city and suburbs, wide area rural coverage, or coverage of a small town and environs), and at the same time small enough to permit either co-channel or adjacent channel stations to be spaced sufficiently close so that an adequate number of assignments could be made (para 59).

……..

It was found that a reasonable compromise affording adequate protection on the one hand and yet a sufficient number of assignments is to provide protected service radii for the various classes….(class A 927 uV/m, Class B 562 uV/m and class C. 944 uV/m)(para 62)

There are now a "sufficient number of allocations". Hence, it is time to utilize some of the remaining FM spectrum to enhance service areas.

To those who will decry the "AMization of the FM band" by such improvements, it is noted that even in its most congested area , the northeastern United States where most facilities are at or near class maximums and there are many grandfathered short-spacings, the FM allocations scheme functions quite well.

It is concluded that class C4s and B2s should be permitted wherever they can be achieved in the non-reserved spectrum.

Fully spaced reference points:

It is proposed that the Commission not require fully spaced reference points for class C4 or B2 facilities since these have already been foreclosed in many instances by stations being short-spaced through no fault of their own by other stations electing §73.215 processing or by grand-fathered short-spacings. Rather, it is proposed that contour protection be utilized with the requirement that the station be able to achieve at least 50% of the incremental 60 dBu coverage area for a class C4 or B2 compared to a class A[1]. Reference points are entirely theoretical and vanish into thin air upon the grant of a construction permit. Although serving a useful purpose as the FM table of allotments was originally developed, they are no longer needed.

Furthermore, the Commission should eliminate fully spaced reference points for all classes and utilize the same 50% incremental service area requirement for upgrades. This requirement will prohibit spectrum hoarding by stations just over class minimums.

§73.215(e) elimination:

§73.215(e) is now a major impediment to the use of existing tower sites. Given the difficulty and expense of constructing new towers, these restrictive tables have frequently blocked the use of a station's existing tower or that of another tower even though contour protection could have been easily achieved. This section should be eliminated for all classes of FM stations to provide greater flexibility for stations that have to move for any number of reasons including facility improvement or in the

[1] For a class A this would be an equivalent 60 dBu contour distance of 30.6 km or 2,942 sq km.

alternative significantly relaxed especially for 2nd and 3rd adjacent channels. It is especially burdensome to stations in smaller markets where the economics of new tower construction are often insurmountable.

§73.215 trigger:

There is much FM spectrum currently unassigned as a result of sub-class facilities operating at substantially less than their permitted maximum HAAT and/or ERP. We agree that such stations that have been licensed for 10 years with less than maximum class facilities should be automatically triggered to §73.215 status at their licensed facility or at 50% of their incremental class facility whichever is greater. This would permit some additional flexibility for station improvement and relocation[2].

Furthermore, the maximum class provision of §73.215 should also be eliminated for all classes if their existing facilities are at 90% or greater of class maximum. Such facilities are highly unlikely to make changes to achieve the additional incremental improvement. This requirement is particularly anomalous for over height stations resulting in theoretical centers of radiation below ground.

Protection of translators and LPFMs:

Any station achieving a class C4 or B2 upgrade should have to accept interference predicted overlap from any existing FM translator or LPFM facility that can not be relocated to a comparable frequency. This provision will protect the Commission's objectives realized with both services and most recently in the AM revitalization proceedings. It is noted that the LPFM rules essentially afford such protection now since they can not be displaced unless there is interference within an FM stations 70 dBu or community of license.

Summary:

1. The Commission should authorize a new class of FM stations with an ERP of 12 kW and 100 meters HAAT - class C4 or B2.

2. Fully spaced reference points should be eliminated for all classes with a requirement that any upgrade achieve at least 50% of the incremental 60 dBu service area above the maximum for its current class. Given the maturity of the FM service, these allocation points are no longer needed to effectuate a fair and equitable distribution of the spectrum.

3. §72.215(e) should be eliminated to afford all class of stations greater flexibility in the use of existing towers.

4. Stations that have been licensed for ten (10) years with sub-class facilities should be §72.215(e) and protected at their licensed facilities or 50% of their class incremental

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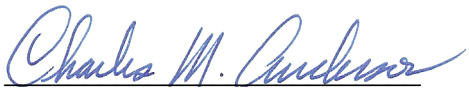
[2] The actual 60 dBu area should be calculated based on 360 contour points and compared to circular areas that would be generated based on a Class A 60 dBu = 26 km, class C4 60 dBu = 30.6 km, class C3 60 dBu = 36.1 km, class C2 60 dBu = 46 km, class C1 60 dBu = 62.8 km, class C0 60 dBu = 77.7 km and class C 60 dBu = 87.9 km. In each case the 60 dBu service area is 50% greater than the maximum for the next lower class. To simplify processing these could be rounded to the nearest km.

area whichever is greater.

5. Stations at 90% or greater of their maximum class facility should be protected at their licensed values and not subject to maximum class protection regardless of the time they have been licensed.

6. Class C4 and B2 upgrades should have to accept overlap from translators and LPFMs that can not be moved to a comparable channel.



Charles M. Anderson
1519 Euclid Avenue
Bowling Green, KY 42103

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